

## ABSTRACT

To improve throughput of a substrate processing without wastefully using a source as a reactant by repeating supply steps of a plurality of reactants for a plurality of times. A substrate processing apparatus includes a source gas obtained by vaporizing a liquid source as a reactant, and functions to process a substrate by repeating the supply of the source gas into a processing chamber 1, and the supply of the reactant different from the source gas into the processing chamber 1, which is executed subsequently, for a plurality of times. A flow rate of the liquid source is controlled by an injection drive control mechanism 6. The injection drive control mechanism 6 is designed to fix the flow rate per one injecting operation of the liquid source directly flowing into a vaporization section in a vaporizer 3, and intermittently inject the liquid source to a vaporization section 31.